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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,460	05/24/2006	Satoshi Fujita	1015282-000070	5517

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EXAMINER
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BOWERS, NATHAN ANDREW

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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12/07/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,460	<b>Applicant(s)</b> FUJITA ET AL.	
	<b>Examiner</b> NATHAN A. BOWERS	<b>Art Unit</b> 1797	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1) Claims 1-5, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Pourahmadi (US 20020055167).

With respect to claim 1, Pourahmadi discloses a biological information inspection system comprising a plurality of light emitting diodes and photodetectors capable of monitoring a chemical reaction. This is disclosed in paragraphs [0117] and [0118]. Each light source and photodetector represent an inspection means capable of detecting biological information. Furthermore, a plurality of sensor chips (Figure 3:101) are provided to fit into respective holding portions of a carrier (Figure 3:211) so that each sensor chip corresponds to an optical inspection means. This is disclosed in paragraph [0057]. Pourahmadi teaches in paragraphs [0059]-[0064] that a sensor chip identifying portion is provided for providing information such as the type of chip, program information such as specific protocols for the processing of the chip, tolerances for accept and reject, serial numbers and lot codes for quality tracking, and provision for storing the results of the processing. Additionally, Pourahmadi states that control, memory and analysis means are provided in the form of processing electronics,

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microprocessors, multiplexers and sensor circuits for controlling the operation of the chip. Inspection means in the form of algorithms are additionally provided in the analyzer for evaluating data obtained by the optical detection system.

With respect to claims 2-5, Pourahmadi discloses the apparatus in claim 1 wherein each sensor chip comprises a cartridge. Pourahmadi teaches that each sensor chip (Figure 16:177) is housed within a cartridge (Figure 16:161) that corresponds to a sensor chip holding portion (see Figure 3). As noted above, a detection portion comprising optical detection means is used to inspect the sensor chip when the sensor chip is positioned within the holding portion.

Pourahmadi further discloses that each of the sensor chips has a different marker portion. As noted in the rejections above, Pourahmadi teaches in paragraphs [0059]-[0064] that a sensor chip identifying portion is provided for providing information such as the type of chip, program information such as specific protocols for the processing of the chip, tolerances for accept and reject, serial numbers and lot codes for quality tracking, and provision for storing the results of the processing. This information is read by the inspection means when the sensor chip is positioned within the holding portion.

With respect to claims 8 and 9, Pourahmadi discloses a biological information inspection system comprising a plurality of light emitting diodes and photodetectors capable of monitoring a chemical reaction. This is disclosed in paragraphs [0117] and [0118]. Each light source and photodetector pair represents an inspection means

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capable of detecting biological information. Furthermore, a plurality of sensor chips (Figure 3:101) are provided to fit into respective holding portions of a carrier (Figure 3:211) so that each sensor chip corresponds to an optical inspection means. This is disclosed in paragraph [0057]. Pourahmadi teaches in paragraphs [0059]-[0064] that a sensor chip identifying portion is provided for providing information such as the type of chip, program information such as specific protocols for the processing of the chip, tolerances for accept and reject, serial numbers and lot codes for quality tracking, and provision for storing the results of the processing. Additionally, Pourahmadi states that control, memory and analysis means are provided in the form of processing electronics, microprocessors, multiplexers and sensor circuits for controlling the operation of the chip. Pourahmadi further teaches that each sensor chip (Figure 16:177) is housed within a cartridge (Figure 16:161) that corresponds to a sensor chip holding portion (see Figure 3). Paragraphs [0059]-[0064] additionally indicate that when a cartridge is positioned within a holding position, a data reading portion is used to acquire information regarding the detection portion and a marker portion.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2) Claims 6, 7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pourahmadi (US 20020055167) as applied to claims 4, 5, 8 and 9, and further in view of Carr (US 5888825).

Pourahmadi discloses the apparatus set forth in the rejections above. Although Pourahmadi teaches that each sensor chip cartridge includes identifying information, Pourahmadi does not expressly indicate that each cartridge and/or chip includes a bar code to be read by a line sensor.

Carr discloses a monitoring apparatus comprising a line sensor (Figure 2:1024) capable of optically interrogating a plurality of containers arranged side by side. This is disclosed in column 3, lines 57-67. Each container comprises a barcode mounted on a side for container identification purposes.

Pourahmadi and Carr are analogous art because they are from the same field of endeavor regarding means for identifying biological test devices.

At the time of the invention, it would have been obvious to provide the Pourahmadi system with a line sensor capable of reading barcodes positioned on the side portions of a plurality of sensor chips arranged in a row. Carr teaches that this configuration is desirable because it allows for the efficient identification of a plurality of different test devices using an automated mechanism. One of ordinary skill would have understood that it would have been possible to implement a well known detection means – such as a line sensor – in the apparatus of Pourahmadi in a predictable manner so as to obtain predictable results.

### ***Response to Arguments***

In response to Applicant's arguments, all previously made rejections under 35 U.S.C. 112 have been withdrawn.

Applicant's remarks filed 01 September 2009 regarding the 35 U.S.C. 102 rejections involving Pourahmadi have been fully considered but they are not persuasive.

*Applicant's principle arguments are*

*(a) The photodetecting elements discussed in Pourahmadi are, if anything, found in the instrument 211, not the cartridges 101.*

In response, please consider the following remarks.

Claim 1 does not require photodetecting elements attached to each cartridge. Accordingly, it is not relevant to the evaluation of the patentability of the claims whether the Pourahmadi photodetecting elements are attached to the cartridge (i.e. sensor chip) or the analysis housing for accommodating the cartridges.

*(b) There is nothing in Pourahmadi to suggest that the instrument 211 includes a plurality of photodetecting elements.*

In response, please consider the following remarks.

Paragraph [0118] teaches that light emitting diodes and photodetectors are each provided within the Pourahmadi apparatus. The use of a plurality of LED/photodetector pairs is strongly implied. Even if only a single LED/photodetector pair is used to evaluate all the sensor chips, then Pourahmadi still discloses a plurality of inspection means because the single LED is considered to be a first inspection means, and the single corresponding photodiode is considered to be a second inspection means.

If the claim is interpreted so that "inspection means" refers to an algorithm rather than a photodetector device (see page 2 of Applicant's remarks), then the claims do not require a plurality of photodetecting elements. Instead, the claim would include limitations drawn to a plurality of algorithms for converting/evaluating test data.



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However, limitations of this matter merely represent an intended use. The controller/analyzer of Pourahmadi is fully capable of being programmed to include essentially any algorithm for interpreting data. The recitation of "inspection means" referring to algorithms does not alter the structure of the claimed invention at all. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

*(c) Pourahmadi does not disclose an analysis means for making a multifactorial analysis of characteristics of living organisms from a plurality of inspection results.*

In response, please consider the following remarks.

Paragraph [0021] of Pourahmadi discloses the use of various microprocessors and microcontrollers for regulating the operation of the cartridge. These microprocessors are fully capable of being programmed to evaluate optical detection results by making a multifactorial analysis of characteristics of a living organism from a plurality of inspection results. As with the claimed "inspection means," the "analysis means" set forth in claim 1 merely represents an intended use - an intended way of running calculations to interpret data. These limitations do not serve to structurally alter the claimed invention. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art

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structure (in this case, the microprocessor of Pourahmadi) is capable of performing the intended use (in this case, multifactorial analysis using a plurality of inspection results), then it meets the claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN A. BOWERS whose telephone number is (571)272-8613. The examiner can normally be reached on Monday-Friday 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Marcheschi can be reached on (571) 272-1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Beisner/  
Primary Examiner, Art Unit 1797

/Nathan A Bowers/  
Examiner, Art Unit 1797